REMARKS

In view of the following remarks, Applicants respectfully request reconsideration and allowance of the subject application. Claims 1-15 and 24-37 are provisionally withdrawn, Claims 17-23, 39-43, 47 and 48 are as originally filed, Claims 16, 38, 44-46, 49 and 50 were previously presented, and Claims 16, 17 and 23 are currently amended. Accordingly, Claims 16-23 and 38-53 are pending.

Election/Restriction

The claims are subject to a restriction requirement under 35 U.S.C. § 121 as containing three patentably distinct inventions:

I.   Claims 1-15 and 24-32, drawn to a method of receiving data without determining the rate of the streaming content;

II.   Claims 16-23, 38-48 and 49-53, drawn to automatic resume of data transmission after first transmission rate; and

III.   Claims 33-37, drawn to a network interface with each multi-bitrate file stores in streaming content.

Applicants hereby elect, **with traverse**, to prosecute Claims 16-23, 38-48 and 49-53 in the event that the restriction requirement is maintained. The election is made with traverse because the restriction requirement is improper and should be withdrawn. The reasons that the restriction requirement is improper are enumerated

below. Any one of the reasons is sufficient to demonstrate that the requirement should be withdrawn. The combination of the reasons overwhelmingly supports withdrawal of the requirement as the only appropriate course.

Reason 1: Untimely

The Patent Rules state that a requirement for restriction "will be made before any action on the merits; however, it may be made at any time before final action in the case at the discretion of the examiner." 37 C.F.R. §1.142.(a).

In the current case, the restriction requirement was not made before any action on the merits, nor was it in the first Action on the merits, the second and final Action on the merits or the third Action on the merits. Instead, the restriction requirement has been advanced with the fourth Action on the merits and **after a Final Action**.

The Office could have brought the restriction requirement in an earlier Action when the requirement could have been more easily considered. Applicant has now expended considerable resources responding to arguments made on the merits of all pending claims, only to have this effort thwarted by a late arriving restriction requirement.

Reason 2: No Prima Facie Evidence to Carry "Serious Burden"

The election/restriction requirement is improper because the Office offers **no** evidence demonstrating the conclusions of distinctiveness between inventions. MPEP 803 states:

There are two criteria for a proper requirement for restriction between patentably distinct inventions:

(1) The inventions must be independent or distinct as claimed; and

(2) There must be a serious burden on the examiner if restriction is not required.

While the Office presents arguments for separate usability, the Office has not carried its serious burden by demonstrating prima facie evidence supporting independent inventions. MPEP 803 states that for "purposes of the initial requirement, a serious burden on the examiner may be prima facie shown if the examiner shows by appropriate explanation either separate classification, separate state in the art, or a different field of search." The Office offers no such prima facie evidence. The current Action provides no explanation of separate status in the art. The Examiner in fact implicitly concedes that the same search is at least needed for Groups II and III.

Reason 3: Without Carrying its "Serious Burden," Office Must Examine Entire Application

MPEP 803 state:

If the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to distinct or independent inventions.

Applicants contend that all three groups can be conveniently searched and examined together without burden on the Office. As supporting evidence, the Office has already issued three Actions on the merits in the present application. Accordingly, the Office must examine the entire application on the merits, even though it might include claims to distinct or independent inventions.

Reason 4: Unduly Burdensome on Applicant

Imposing a restriction requirement at this late stage in prosecution is unduly burdensome to Applicants. Applicants are forced to present a response here, and if the requirement is upheld, file and prosecute three separate applications on the merits. This results in a substantial financial burden on the Applicants for an invention that can be handled effectively in one application, and in fact, has been handled in one application through more than one entire examination cycle.

Reason 5: Increase Burden on Office

Searching and examining three applications, where one has sufficed for several actions, dramatically increases the burden on the Office. The Office must make three duplicative searches, rather than one. Withdrawing the restriction requirement and keeping the claims together in one application would prove more efficient and effective for the Office in handling the subject invention.

For each of the above advanced reasons, Applicants respectfully request withdrawal of the restriction requirement.

35 U.S.C. §102 Rejections

Applicants submit that the Office has failed to establish a prima facie case of anticipation

Response to the §102 Rejections

Claims 16-23 and 38-53 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,757,255 to Aoki et al. In response, the Applicants respectfully submit that the Office has failed to show that Aoki sets forth each and every element recited in the rejected claims.

Claim 16 recites a method comprising

- receiving a first request from a client to stream content to the client at a first transmission rate;

- streaming content to the client at the first transmission rate;

- receiving a second request from the client to increase the streaming to a second transmission rate for a specified amount of content data;

- streaming the specified amount of content data to the client at the second transmission rate; and

- automatically resuming streaming content, after the specified amount of content data, to the client at the first transmission rate.

Aoki does not disclose the claimed combination of elements recited in Claim 16. Instead, Aoki in a first embodiment discusses determining the round trip time, segment size, congestion window size, packet discard rate and packet discard event while sending and receiving packets. Aoki in a third embodiment discusses determining when the round trip time of a packet exceeds the round trip time of the previous measurement packet by a predetermined threshold. Aoki uses the techniques discussed in these embodiments to determine the available bandwidth in the communication network.

The first embodiment in Aoki is directed toward TCP communications in which the transmission rate is controlled at the transmitting device. In particular, the transmission rate is controlled by a slow start algorithm and a congestion avoidance algorithm. Those skilled in the art appreciate that the algorithms adjust the rate of transmission *automatically* without sending or receiving requests to change the rate of transmission.

In addition, those skilled in the art appreciate that the transmission rate is exponentially increased after each acknowledgment during the slow start algorithm. During the congestion avoidance algorithm, the transmission rate is automatically halved when congestion is detected. The transmission rate is then incrementally increased until the determined effective bandwidth is reached or until congestion is again detected. Accordingly, the transmission rate in automatically increased either

exponentially or incrementally and then automatically halved if congestion is detected.

Furthermore, the TCP acknowledgement packet is not inherently a request to change the rate of transmission. The TCP acknowledgment packet only contains an acknowledgment number indicative of the last packet that was received. In addition, the transmission rate is controlled by the transmitting device, independent of the acknowledgment packets. For example, the transmission rate is held constant once transmission at the effective bandwidth rate is achieved. During this period acknowledgement packets continue to be returned by the receiving device to the transmitting device. These acknowledgment packets have no effect on the transmission rate when the transmitting device is transmitting at the determined effective bandwidth. Further, the amount of content sent at a given transmission rate is controlled by the TCP window size, which is determined by the transmitting device and not the acknowledgment packet.

Thus, neither the slow start algorithm and/or the congestion avoidance algorithm of the TCP protocol implement a method that includes "streaming content to the client at the first transmission rate," "streaming the specified amount of content data to the client at the second transmission rate" and "automatically resuming streaming content, after the specified amount of content data, to the client at the first transmission rate," as recited in Claim 16. In addition, the transmitting-side

communication device, as disclosed by Aoki, does not receive "a second request" to "increase" the transmission rate for "a specified amount of content data."

In the third embodiment, Aoki discloses that the transmission rate is automatically adjusted in accordance with a "split half" method (See S22, S25 and S26 in Figure 19), a "regula falsi" method (See S32, S34, S35, S38 and S39 in Figure 20), a "monotone increasing" method (See S52 and S55 in Figure 21) or a "monotone decreasing" method (See S62 and S65 in Figure 22). None of these methods include adjusting the transmission rate in response to a request from the receiving device. Instead, the transmission rate is adjusted automatically by the transmitting device in accordance with the algorithms shown in the respective figures. Furthermore, a mathematical analysis of these methods unambiguously confirm that Aoki does not disclose "streaming content to the client at the first transmission rate," "streaming the specified amount of content data to the client at the second transmission rate" and "automatically resuming streaming content, after the specified amount of content data, to the client at the first transmission rate," as recited in Claim 16. In addition, neither the transmitting-side communication device nor the receiving-side communication device, as disclosed by Aoki, send or receive "a request" to "increase" the transmission rate for "a specified amount of content data."

Thus, Aoki does not disclose the claimed combination of each and every element as recited in Claim 16. Applicants therefore respectfully submit that Claim

16 is patentable over Aoki. Accordingly, Applicants request that the §102(e) rejection of Claim 16 be withdrawn and that Claim 16 be allowed.

Claim 38 recites one or more computer-readable media containing computer-executable instructions that, when executed on a computer, perform the following steps:

- requesting a server to transmit content file data over a network at a first transmission rate;

- while receiving a portion of the content file data at the first transmission rate, requesting the server to transmit a specific portion of the content file data over the network at a second transmission rate;

- receiving the specific portion of the content file data from the server at an actual transmission rate which is less than or equal to the second transmission rate;

- determining if the network can viably support transmission of the content file data at the actual transmission rate during receipt of the specific portion of the content file data;

- if the network can viably support transmission of the content data at the actual transmission rate, requesting the server to transmit subsequent content file data at a rate that is not greater than the actual transmission rate;

- if the network cannot viably support transmission of the content data at the actual transmission rate, automatically receiving subsequent content file data at the first transmission rate; and

- wherein the subsequent content file data is content file data that is transmitted after the specific portion of content file data has concluded transmission.

Aoki does not disclose the claimed combination of elements recited in Claim 38. Instead, Aoki in a first embodiment discusses determining the round trip time, segment size, congestion window size, packet discard rate and packet discard event while sending and receiving packets. Aoki in a second embodiment discusses determining an average round trip time for transmission of echo packets and estimating a maximum congestion window size. Aoki in a third embodiment discusses determining when the round trip time of echo packet exceeds the round trip time of the previous measurement packet by a predetermined threshold.

In each embodiment the transmission rate is automatically adjusted according to either a combination of the slow start and congestion avoidance algorithm, a split-half method, a regula falsi method, a monotone increase method or a monotone decrease method. The algorithms adjust the rate of transmission *automatically* without sending or receiving requests to change the rate of transmission. In particular, the TCP acknowledgement packet is not inherently a request to change the rate of transmission.

Thus, as discussed above in the response to the rejection of Claim 16 in more detail, Aoki does not disclose the claimed combination of each and every element of Claim 38. Applicants therefore respectfully submit that Claim 38 is patentable over Aoki. Accordingly, Applicants request that the §102(e) rejection of Claim 38 be withdrawn and that Claim 38 be allowed.

Claim 49 recites one or more computer-readable media containing computer-executable instructions that, when executed on a computer, perform the following steps:

- transmitting content file data to a client over a network at a first transmission rate;
- receiving a request from the client to transmit a particular amount of content file data to the client at a second transmission rate;
- transmitting the particular amount of content file data to the client at the second transmission rate; and
- automatically transmitting content file data, subsequent to the particular amount of content file data, to the client at the first transmission rate.

Aoki does not disclose the claimed combination of elements recited in Claim 49. As discussed above in the response to the rejection of Claim 16 in more detail, Aoki the transmission rate is changed either the slow start and congestion avoidance algorithms of the TCP protocol, a split-half method, a regula falsi method, a

monotone increasing method or monotone decreasing method. None of these methods include "transmitting content file data to the client over a network <u>at a first transmission rate</u>," "transmitting <u>the particular amount of content file</u> data to the client <u>at the second transmission rate</u>" and "<u>automatically</u> transmitting content file data, <u>subsequent to the particular amount of content file data</u>, to the client <u>at the first transmission rate</u>," as recited in Claim 49. In addition, the transmitting-side communication device, as disclosed by Aoki, does not receive "a request" to "transmit a particular amount of content file data to the client <u>at a second transmission rate</u>."

Thus, Aoki does not disclose the claimed combination of each and every element of Claim 49. Applicants therefore respectfully submit that Claim 49 is patentable over Aoki. Accordingly, Applicants request that the §102(e) rejection of Claim 49 be withdrawn and that Claim 49 be allowed.

Claims 17-23 are allowable by virtue of their dependency on respective base Claim 16, as well as the additional elements they recite. Accordingly, Applicants respectfully request that the §102(e) rejection of Claims 17-23 be withdrawn and that Claims 17-23 be allowed.

Claims 39-48 are allowable by virtue of their dependency on respective base Claim 38, as well as the additional elements they recite. Accordingly, Applicants respectfully request that the §102(e) rejection of Claims 39-48 be withdrawn and that Claims 39-48 be allowed.

Claims **50-53** are allowable by virtue of their dependency on respective base Claim 49, as well as the additional elements they recite. Accordingly, Applicants respectfully request that the §102(e) rejection of Claims 50-53 be withdrawn and that Claims 50-53 be allowed.

Conclusion

Applicants submit that the pending claims are in condition for allowance and respectfully requests that this application be allowed and forwarded on to issuance.

Respectfully Submitted,

Date: _1/23/06_

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